



SEQUENCE LISTING

<110> AVENTIS PHARMA SA
US GOVERNMENT of the UNITED STATES

<120> NUCLEIC ACID OF THE HUMAN ABCC11 GENE, VECTORS
CONTAINING SUCH NUCLEIC ACID, AND USES THEREOF

<130> ABCC11 GENE

<140> ST01005

<141> 2002-03-05

<150> 60/272,757

<151> 2001-03-05

<160> 31

<170> PatentIn Ver. 2.1

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 355 360 365

Arg	Arg	Lys	Glu	Arg	Lys	Leu	Leu	Glu	Lys	Cys	Gly	Leu	Val	Gln	Ser	370	375	380	
Leu	Thr	Ser	Ile	Thr	Leu	Phe	Ile	Ile	Pro	Thr	Val	Ala	Thr	Ala	Val	385	390	395	400
Trp	Val	Leu	Ile	His	Thr	Ser	Leu	Lys	Leu	Lys	Leu	Thr	Ala	Ser	Met	405	410	415	
Ala	Phe	Ser	Met	Leu	Ala	Ser	Leu	Asn	Leu	Leu	Arg	Leu	Ser	Val	Phe	420	425	430	
Phe	Val	Pro	Ile	Ala	Val	Lys	Gly	Leu	Thr	Asn	Ser	Lys	Ser	Ala	Val	435	440	445	
Met	Arg	Phe	Lys	Lys	Phe	Phe	Leu	Gln	Glu	Ser	Pro	Val	Phe	Tyr	Val	450	455	460	
Gln	Thr	Leu	Gln	Asp	Pro	Ser	Lys	Ala	Leu	Val	Phe	Glu	Glu	Ala	Thr	465	470	475	480
Leu	Ser	Trp	Gln	Gln	Thr	Cys	Pro	Gly	Ile	Val	Asn	Gly	Ala	Leu	Glu	485	490	495	
Leu	Glu	Arg	Asn	Gly	His	Ala	Ser	Glu	Gly	Met	Thr	Arg	Pro	Arg	Asp	500	505	510	
Ala	Leu	Gly	Pro	Glu	Glu	Glu	Gly	Asn	Ser	Leu	Gly	Pro	Glu	Leu	His	515	520	525	
Lys	Ile	Asn	Leu	Val	Val	Ser	Lys	Gly	Met	Met	Leu	Gly	Val	Cys	Gly	530	535	540	
Asn	Thr	Gly	Ser	Gly	Lys	Ser	Ser	Leu	Leu	Ser	Ala	Ile	Leu	Glu	Glu	545	550	555	560
Met	His	Leu	Leu	Glu	Gly	Ser	Val	Gly	Val	Gln	Gly	Ser	Leu	Ala	Tyr	565	570	575	
Val	Pro	Gln	Gln	Ala	Trp	Ile	Val	Ser	Gly	Asn	Ile	Arg	Glu	Asn	Ile	580	585	590	
Leu	Met	Gly	Gly	Ala	Tyr	Asp	Lys	Ala	Arg	Tyr	Leu	Gln	Val	Leu	His	595	600	605	
Cys	Cys	Ser	Leu	Asn	Arg	Asp	Leu	Glu	Leu	Leu	Pro	Phe	Gly	Asp	Met	610	615	620	
Thr	Glu	Ile	Gly	Glu	Arg	Gly	Leu	Asn	Leu	Ser	Gly	Gly	Gln	Lys	Gln	625	630	635	640
Arg	Ile	Ser	Leu	Ala	Arg	Ala	Val	Tyr	Ser	Asp	Arg	Gln	Ile	Tyr	Leu	645	650	655	
Leu	Asp	Asp	Pro	Leu	Ser	Ala	Val	Asp	Ala	His	Val	Gly	Lys	His	Ile	660	665	670	

Phe	Glu	Glu	Cys	Ile	Lys	Lys	Thr	Leu	Arg	Gly	Lys	Thr	Val	Val	Leu	675	680	685
Val	Thr	His	Gln	Leu	Gln	Tyr	Leu	Glu	Phe	Cys	Gly	Gln	Ile	Ile	Leu	690	695	700
Leu	Glu	Asn	Gly	Lys	Ile	Cys	Glu	Asn	Gly	Thr	His	Ser	Glu	Leu	Met	705	710	715
Gln	Lys	Lys	Gly	Lys	Tyr	Ala	Gln	Leu	Ile	Gln	Lys	Met	His	Lys	Glu	725	730	735
Ala	Thr	Ser	Asp	Met	Leu	Gln	Asp	Thr	Ala	Lys	Ile	Ala	Glu	Lys	Pro	740	745	750
Lys	Val	Glu	Ser	Gln	Ala	Leu	Ala	Thr	Ser	Leu	Glu	Glu	Ser	Leu	Asn	755	760	765
Gly	Asn	Ala	Val	Pro	Glu	His	Gln	Leu	Thr	Gln	Glu	Glu	Glu	Met	Glu	770	775	780
Glu	Gly	Ser	Leu	Ser	Trp	Arg	Val	Tyr	His	His	Tyr	Ile	Gln	Ala	Ala	785	790	795
Gly	Gly	Tyr	Met	Val	Ser	Cys	Ile	Ile	Phe	Phe	Phe	Val	Val	Leu	Ile	805	810	815
Val	Phe	Leu	Thr	Ile	Phe	Ser	Phe	Trp	Trp	Leu	Ser	Tyr	Trp	Leu	Glu	820	825	830
Gln	Gly	Ser	Gly	Thr	Asn	Ser	Ser	Arg	Glu	Ser	Asn	Gly	Thr	Met	Ala	835	840	845
Asp	Leu	Gly	Asn	Ile	Ala	Asp	Asn	Pro	Gln	Leu	Ser	Phe	Tyr	Gln	Leu	850	855	860
Val	Tyr	Gly	Leu	Asn	Ala	Leu	Leu	Leu	Ile	Cys	Val	Gly	Val	Cys	Ser	865	870	875
Ser	Gly	Ile	Phe	Thr	Lys	Val	Thr	Arg	Lys	Ala	Ser	Thr	Ala	Leu	His	885	890	895
Asn	Lys	Leu	Phe	Asn	Lys	Val	Phe	Arg	Cys	Pro	Met	Ser	Phe	Phe	Asp	900	905	910
Thr	Ile	Pro	Ile	Gly	Arg	Leu	Leu	Asn	Cys	Phe	Ala	Gly	Asp	Leu	Glu	915	920	925
Gln	Leu	Asp	Gln	Leu	Leu	Pro	Ile	Phe	Ser	Glu	Gln	Phe	Leu	Val	Leu	930	935	940
Ser	Leu	Met	Val	Ile	Ala	Val	Leu	Leu	Ile	Val	Ser	Val	Leu	Ser	Pro	945	950	955
Tyr	Ile	Leu	Leu	Met	Gly	Ala	Ile	Ile	Met	Val	Ile	Cys	Phe	Ile	Tyr	965	970	975

Tyr Met Met Phe Lys Lys Ala Ile Gly Val Phe Lys Arg Leu Glu Asn
 980 985 990
 Tyr Ser Arg Ser Pro Leu Phe Ser His Ile Leu Asn Ser Leu Gln Gly
 995 1000 1005
 Leu Ser Ser Ile His Val Tyr Gly Lys Thr Glu Asp Phe Ile Ser Gln
 1010 1015 1020
 Phe Lys Arg Leu Thr Asp Ala Gln Asn Asn Tyr Leu Leu Leu Phe Leu
 1025 1030 1035 1040
 Ser Ser Thr Arg Trp Met Ala Leu Arg Leu Glu Ile Met Thr Asn Leu
 1045 1050 1055
 Val Thr Leu Ala Val Ala Leu Phe Val Ala Phe Gly Ile Ser Ser Thr
 1060 1065 1070
 Pro Tyr Ser Phe Lys Val Met Ala Val Asn Ile Val Leu Gln Leu Ala
 1075 1080 1085
 Ser Ser Phe Gln Ala Thr Ala Arg Ile Gly Leu Glu Thr Glu Ala Gln
 1090 1095 1100
 Phe Thr Ala Val Glu Arg Ile Leu Gln Tyr Met Lys Met Cys Val Ser
 1105 1110 1115 1120
 Glu Ala Pro Leu His Met Glu Gly Thr Ser Cys Pro Gln Gly Trp Pro
 1125 1130 1135
 Gln His Gly Glu Ile Ile Phe Gln Asp Tyr His Met Lys Tyr Arg Asp
 1140 1145 1150
 Asn Thr Pro Thr Val Leu His Gly Ile Asn Leu Thr Ile Arg Gly His
 1155 1160 1165
 Glu Val Val Gly Ile Val Gly Arg Thr Gly Ser Gly Lys Ser Ser Leu
 1170 1175 1180
 Gly Met Ala Leu Phe Arg Leu Val Glu Pro Met Ala Gly Arg Ile Leu
 1185 1190 1195 1200
 Ile Asp Gly Val Asp Ile Cys Ser Ile Gly Leu Glu Asp Leu Arg Ser
 1205 1210 1215
 Lys Leu Ser Val Ile Pro Gln Asp Pro Val Leu Leu Ser Gly Thr Ile
 1220 1225 1230
 Arg Phe Asn Leu Asp Pro Phe Asp Arg His Thr Asp Gln Gln Ile Trp
 1235 1240 1245
 Asp Ala Leu Glu Arg Thr Phe Leu Thr Lys Ala Ile Ser Lys Phe Pro
 1250 1255 1260
 Lys Lys Leu His Thr Asp Val Val Glu Asn Gly Gly Asn Phe Ser Val
 1265 1270 1275 1280

Gly Glu Arg Gln Leu Leu Cys Ile Ala Arg Ala Val Leu Arg Asn Ser
1285 1290 1295

Lys Ile Ile Leu Ile Asp Glu Ala Thr Ala Ser Ile Asp Met Glu Thr
1300 1305 1310

Asp Thr Leu Ile Gln Arg Thr Ile Arg Glu Ala Phe Gln Gly Cys Thr
1315 1320 1325

Val Leu Val Ile Ala His Arg Val Thr Thr Val Leu Asn Cys Asp His
1330 1335 1340

Ile Leu Val Met Gly Asn Gly Lys Val Val Glu Phe Asp Arg Pro Glu
1345 1350 1355 1360

Val Leu Arg Lys Lys Pro Gly Ser Leu Phe Ala Ala Leu Met Ala Thr
1365 1370 1375

Ala Thr Ser Ser Leu Arg
1380